2828 JULOI PM 1: 51

2019 CERTIFICATION

Consumer Confidence Report (CCR)

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		1	Submission of	ptions (Select one a	nethod Ol	VLY)	
	Mail: (U.S.	Postal Service)			water.reports@	nsdh.ms.gov
	MSDH, Bure P.O. Box 170 Jackson, MS	an of Public W 00 39215	ater Supply		Fax:	(601) 576 - 780 preferred metho	0 od due to poor clarity**

CCR Deadline to MSDH & Customers by July 1, 2020!

2019 Annual Drinking Water Quality Reporting 15 AM 8: 03 City of Jackson PWS#: 0250008 May 2020

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

If you have any questions about this report or concerning your water utility, please contact Mary D. Carter, Deputy Director of Water Operations, at 601.960.2091 We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on every other Tuesday of the month at 10:00 AM or 6:00 PM within the City Hall.

Our water source is from wells drawing from the Sparta System, J. H. Fewell WTP is surface water intake for Pearl River, O.B. Curtis WTP is surface water intake from the Ross Barnett Reservoir. The source water assessment has been completed for our public water system to determine the overall susceptibility of its drinking water supply to identified potential sources of contamination. A report containing detailed information on how the susceptibility determinations were made has been furnished to our public water system and is available for viewing upon request. The wells for the City have received lower to moderate susceptibility rankings to contamination.

We routinely monitor for contaminants in your drinking water according to Federal and State laws. This table below lists all of the drinking water contaminants that we detected during the period of January 1st to December 31st, 2019. In cases where monitoring wasn't required in 2019, the table reflects the most recent results. As water travels over the surface of land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances or contaminants from the presence of animals or from human activity; microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm-water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming, pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm-water runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations and septic systems; radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily indicate that the water poses a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level (MCL) - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk of health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

				TEST RESU	ILTS				
Contaminant	Violation Date Y/N Collected		Level Detected	Range of Detects or # of Samples Measure Exceeding -ment MCL/ACL		MCLG	MCL	Likely Source of Contaminat	
Microbiolo	gical Co	ontamina	ants					215	
1. Total Coliform Bacteria	N	June August October	Positive	1 out of 128 2 out of 128 2 out of 122	NA	0	presence bacteria ii monthly s		Naturally present in the environmen
Cryptosporidium/ Giardia lamblia	N	2019	Positive	2 out of 16 4 out of 16		0		Π	Human and anima fecal waste

Turbidity	N	2019	0.49	Lowest month below 0.3 NTI 95.6 %		NA		0			TT Soil runoff		
Total Organic Carbon	N	2019	1.37 Averag	45% - 50%		NA		0			TT Naturally present in the environmen		
Radioactive	e Con	taminan									•		
5. Gross Alpha	N	2019*	2.4	.79 – 2.4		pCi/L	Т	0	1	15	Erosion of natural deposits		
6. Radium 226	N	2019	.57	.2957		pCi/L		0		5	Erosion of natural deposits		
Radium 228 Inorganic (Conto	minants	.66	.5266			1	1					
				1			1	_ /- T		ıo I	Ei		
8. Arsenic	N	2018*	.9	.79e		ppb		n/a			Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes		
10. Barium	N	2018*	.0247	.00180247		ppm	!	2		- 1	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits		
13. Chromium	N	2018*	5.4	.8 – 5.4		ppb		100	10		Discharge from steel and pulp mills; erosion of natural deposits		
14. Copper	N	7/01/19- 12/31/19		0		ppm		1.3	AL=1.3		Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives		
15. Cyanide	N	2019	45	No Range		ppb		200	200		Discharge from steel/metal factories; discharge from plastic and fertilizer factories		
16. Fluoride	N	2019	1.28	735 – 1.28		ppm		4	4		Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories		
17. Lead	N	7/01/19- 12/31/19		0		ppb		0	AL=15		Corrosion of household plumbing systems, erosion of natural deposits		
19. Nitrate (as Nitrogen)	N	2019	143	.273		ppm		10	10 10		Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits		
20. Nitrite (as Nitrogen)	N	2019	.05	No Range		ppm		1		1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits		
Sodium	Sodium N		130000	3000 – 13000	00	PPB	NONE				Road Salt, Water Treatment Chemicals, Water Softeners and Sewage Effluents		
Disinfection	n By-	Products	s				-			-			
81. HAA5	N	2019	54	6 - 64	ppb		0		60	,	Product of drinking water nfection.		
82. TTHM [Total trihalomethanes]	N	2019	46	14.2 - 51	ppb		0		80	Ву-	ky-product of drinking water hlorination.		
Chlorine	N	2019	1.9	.03 – 3.9	mg/l		0	MRI	DL = 4		ter additive used to control crobes		
Unregulate	ed Cor	ntamina	nts										
Bromide	N	2019	23.6	No Range	UG/L					earl sea wat	urally-occurring element found in the h's crust and at low concentrations in water, and in some surface and grour er; cobaltous chloride was formerly d in medicines and as a germicide		
Germanium	N	2019	.38	.30 – .38	UG/L		0.3 MR		available element ore proof fiber-opt		urally-occurring element; commerciall ilable in combination with other ments and minerals; a byproduct of zi processing; used in infrared optics, r-optic systems, electronics and solar lications		
Manganese	N	2019	74.3	.4 - 74.3	UG/L		0.4 MRL 0.4		Nat ava eler prod firev	Naturally-occurring element; commerciall available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemicals; essential nutrient			
HAA5	N	2019	105.6	.62 105.6	UG/L					556	The state of the s		
11773													

HAA9	N	2019	108.9	.62 – 108.9	UG/L	
Total Organic Carbon	N	2019	9520	6760 - 9520	UG/L	Comes from decaying natural organic matter

^{*} Most recent sample. No sample required for 2019.

Microbiological Contaminants:

(1) Total Coliform/E Coli. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system.

In 2019, during June our system had one sample out of 128 that tested positive for total coliform, in August 2 out of 128, and in October 1 sample 122. All resample were clear showing that our water meets the drinking water standards.

Our system received the following violations that the public notice has been completed for: OCCT/SOWT Install Demonstration (LCR) and WQP Level Non- Compliance (LCR).

We are required to monitor your drinking water for specific contaminants on a monthly basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. In an effort to ensure systems complete all monitoring requirements, MSDH now notifies systems of any missing samples prior to the end of the compliance period.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Our water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead. The Mississippi State Department of Health Public Health Laboratory offers lead testing. Please contact 601.576.7582 if you wish to have your water tested.

Our system monitored for Cryptosporidium and Giardia Lamblia and detected the constituent Cryptosporidium in 2 of the 16 samples tested and Giardia Lamblia in 4 of the 16 samples tested. Cryptosporidium and Giardia are microbial pathogens found in surface water throughout the U.S. Although filtration removes Cryptosporidium and Giardia Lamblia, the most commonly used filtration methods cannot guarantee 100 percent removal. Out monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of the Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people, infants and small children, and the elderly are at a greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium and Giardia Lamblia must be ingested to cause disease, and it may be spread through means other than drinking water.

Significant Deficiencies

Monitoring and Reporting of Compliance Data Violations:

During a sanitary survey conducted on11/18/2016 & 11/21/2019, the Mississippi State Department of Health cited the following significant deficiency(s): Function and Condition of Treatment Facilities

Corrective Actions: This system does not have a compliance plan or documentation showing the item has been corrected. Enforcement action is scheduled for this system by 12/31/20.

Additionally, we were cited for Non-Compliance of Water Quality Parameter requirements of our Optimized Corrosion Control Treatment plan during the following compliance periods: January to June 2016; January to June 2018; July to December 2018; January to June 2019; July to December 2019.

To comply with the "Regulation Governing Fluoridation of Community Water Supplies", our system is required to report certain results pertaining to fluoridation of our water system. The number of months in the previous calendar year in which average fluoride sample results were within the optimal range of 0.6-1.2 ppm was 11. The percentage of fluoride samples collected in the previous calendar year that was within the optimal range of 0.6-1.2 ppm was 76%.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1.800.426.4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline 1.800.426.4791.

The City of Jackson works around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

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We routinely mo Federal and Sta contaminants tha 31x, 2019. In ca: the most recen underground, it radioactive mate presence of anin viruses and bac systems, agricult such as salts and storm-water runc production, minin a variety of so residential uses; organic chemical production, and radioactive conta oil and gas produ is safe to drink, contaminants in including bottled small amounts c presence of thes poses a health ris

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Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water

- * Most recent sample. No sample required for 2019. Microbiological Contaminants:
- (1) Total Coliform/E Coli. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system.

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				TEST	KESU	LIS		
Contaminant	Violation Y/N	Date Collected		ed Samples Exc	Range of Detects or # of Samples Exceeding MCL/ACL			
Microbiolog	ical Con	itaminai	nts					
1. Total Coliform Bacte	N and	June August October	Positive	1 out of 128 2 out of 128 2 out of 122		NA		
Cryptosporidium/ Giardia N Iamblia		2019	Positive	2 out of 16 4 out of 16				
Turbidity N		2019	0.49	Lowest monthly	Lowest monthly %			
Total Organic Carbon	N	2019	1.37	below 0,3 NTU 45% - 50%	= 95,6 %	NA	\vdash	
Dadiaaatiya	Conton	incuto	Average					
Radioactive			Test	1 224 1 201		11.272	-	
5, Gross Alpha 6, Radium 226	N	2019*	.57	.79 - 2.4 .2957		pCi/L pCi/L	1	
Radium 228			.66	.5265			_	
Inorganic C	ontamin	ants						
8. Arsenic	N	2018*	.9	79е		ppb		
10. Barium	N	2018*	.0247	.00180247		ppm		
13, Chromium	N	2018*	5.4	.8 - 5,4		ppb		
14. Copper	N	7/01/19- 12/31/19	.1	0	0			
15, Cyanide	N	2019	45	No Range		ppb		
16. Fluoride	N		1,28	_735 - 1_28		ppm		
17. Lead	N	7/01/19- 12/31/19	7	0		ppb	H	
19. Nitrata (as Nitrogan)			.3	.273		ppm		
20, Nitrite (as Nitrogen)			.05	No Range		ppm	T	
Sodium	N	2019	130000	3000 – 130000		PPB	1	
Disinfection	By-Pro	ducts	_1			là	1	
81. HAA5		2019	54	6 - 64	ppb		0	
82. TTHM [Total trihalomethanes]		2019	46	14.2 - 51	ppb		0	
Chlorine	N	2019	1.9	.03 - 3.9	mg/l		0	
Unregulated	Contan	ninants						
Bromide	N	2019	23.6	No Range	UG/L			
Germanium	Germanium N 20		.38	.30 – .38	UG/L		0,3	
Manganese	N 2019		74.3	.4 – 74.3	UG/L		0.4	
HAA5	N :	2019	105.6	.62 105.6	UG/L			
HAA6BR	N	2019	3.74	.36 – 3.74	UG/L			
HAA9	N	2019	108.9	.62 - 108.9	UG/L			
Total Organic	N	2019	9520	6760 - 9520	UG/L			
Carbon								

exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead. The Mississippi State Department of Health Public Health Laboratory offers lead testing. Please contact 601.576.7582 if you wish to have your water tested.

Our system mon the constituent (Lamblia in 4 of microbial pathog filtration removes used filtration me indicates the pre water. Current te